



Issue Brief

Status and Implementation of Transboundary River Agreements on the Kosi River in Nepal

Executive Summary

The Kosi River is infamous in parts of Nepal and India, where the river - due to its erratic and shifting course - has caused frequent floods affecting thousands of families and inundating several hectares of agricultural land in both countries. In 1954, India and Nepal signed the Kosi Agreement to enable construction of a barrage and embankments as flood control and mitigation measures. Subsequently a revised version of the Agreement was signed in 1966. This issue brief—the first in a series of three—summarizes the findings of a study conducted by the Institute for Social and Environmental Transition-Nepal (ISET-N)¹ on the availability and accessibility of hydrological data and information on the Kosi River in Nepal. Specifically, it reviews the status and implementation of bilateral agreements on the Kosi River and assesses the extent to which information on the agreements is publicly available.

Between Nepal and India, there are three key bilateral agencies responsible for assessing and ensuring implementation of agreements such as the Kosi Agreement. These agencies are: the Joint Ministerial Commission on Water Resource (JMCWR), Joint Commission on Water Resource (JCWR) and Joint Standing Technical Committee (JSTC). In Nepal, the Ministry of Energy and the Ministry of Irrigation and Water and Energy Commission Secretariat are primarily responsible for the formulation of policies and plans in the water and energy resources sector. Construction of the Kosi Barrage and embankment were completed in 1963. However, till date there are a number of pending bilateral issues regarding the Agreement and its

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implementation. One of the key issues has been that of compensation. Under the Kosi Agreement, India is responsible for providing compensation of land submerged due to construction of the barrage and embankment, yet there remain a number of families in Nepal who claim they have not received any compensation. The issue of compensation has been raised in a number of joint commission meetings alongside other key concerns such as the Saptakoshi High Dam Multipurpose Project and the 2008 Kosi floods.

In terms of the public availability of information, some information related to the functioning of the Kosi Agreement and its implementation is available in the public domain, however it is not always detailed or up to date. For example, a copy of the Kosi Agreement and some meeting minutes of bilateral committees such as the JCWR and JSTC are available on the websites of government departments such as the Water and Energy Commission Secretariat, Ministry of Energy and Ministry of Irrigation. Though some of the meeting minutes are not available or released on public websites, the Government of Nepal does occasionally release bilateral documents for public consumption. Therefore, the public can assess this information and enhance their knowledge on transboundary water agreements and negotiations.

Recommendations from the study include systematization of water governance data and information including for example, reports, agreements, papers, minutes of meetings and articles etc. This information should be regularly and widely disseminated in the public domain. Regular dissemination of information on the implementation of agreements, especially in accessible, succinct formats will not only serve to keep concerned stakeholders informed but also enable the public to provide feedback on the quality and accessibility of information. Furthermore, the public can also be more proactive and request data and information from the government as a means to emphasize the value and importance of sharing information on transboundary water issues with the public.

General Overview of Existing Bilateral Treaties/Obligations

The Kosi River, infamously known as the “sorrow of Bihar” has caused massive devastation in parts of Bihar (India) and the Tarai region (Nepal) due to frequent changes in the river's course. Between 1730-1950, the river shifted westwards by 115 kilometres, affecting approximately 1,280 km² area in Nepal and 15,3600 km² area in Bihar. Historically, the debate on the construction of an embankment on the river dates back to the early 19th century. Post independence, in 1953, heavy floods in northern Bihar prompted the Government of Bihar to form a committee of experts to study flood control and the then Indian Prime Minister Jawaharlal Nehru also emphasized the need to address the flood problem. The expert committee recommended the construction of embankment on the Kosi.

Subsequently, the Indian Parliament agreed to the construction of a barrage and embankment. In April 1954, following a two-day discussion, between the Indian Minister Guljari Lal Nanda and Prime Minister Matrika Prasad Koirala of Nepal, the “Agreement on Kosi Project between Nepal and India” was signed on April 25, 1954. The 1954 Kosi Agreement was heavily criticized by opposition leaders in Nepal who felt the Agreement favored India more than Nepal. As a result, the Agreement was amended in December 19, 1966. The differences between the 1954 and 1966 agreements are highlighted in Table 1:

Table 1. Comparison between 1954 and 1966 Kosi Agreements

1954 Kosi Agreement	Amended 1966 Kosi Agreement
Clauses on prior approval and notification to Nepal government not clearly defined	Any work or activities related to the project (e.g. survey, construction etc.) in Nepal requires prior approval and notification
Submission of data, specimen, reports and other results of survey by Indian government not mentioned	All data, specimens, reports and other results of survey carried out by the Indian government should be provided to the Nepal government
Clauses on water use and power are unclear and emphasize more on India's right to regulate the Kosi River at the barrage site	Elaborates Nepal's right to water withdrawal for irrigation and other purposes from Kosi and its tributaries
No clause on communicating to the Indian government regarding increase or decrease of power supply	Nepal government to communicate with the Indian government three months earlier on increase or decrease of power supply exceeding 6800 KW
Provision on land ownership ambiguous and a little misleading	Project land to be leased by the Nepal government to India for 99 years
No time period mentioned for establishment of civic amenities (e.g. school, hospital, water supply etc)	Civic amenities to be established for the duration of construction of the project upon approval of the Nepal government.

1. Indo-Nepal Mechanisms for Bilateral Cooperation on the Kosi River

The Kosi Agreement of 1954 provides for the setting up of a Coordination Committee for the Kosi project to discuss problems of common interest - such as land acquisition, rehabilitation of displaced population and maintaining law and order - and also to carry out early completion of the Kosi project. Under the amended 1966 Kosi Agreement, the Coordination Committee was dissolved and replaced by an Indo-Nepal Kosi Project Commission, which has the same responsibilities as the Coordination Committee.

The governments of Nepal and India have established a three-tier bilateral mechanism to manage, discuss and coordinate on water sharing issues:

Joint Ministerial Commission for Water Resources (JMCWR)

The JMCWR was initially headed by Minister of Water Resources of India and Nepal to address bilateral cooperation issues on water resources. Following the dissolution of the Ministry of

Water Resources in Nepal, ministers from the Ministry of Energy and Ministry of Irrigation take part in the bilateral meetings of the committee. The JMCWR is responsible for discussing and deciding plans for maximizing the benefits of water resource development through bilateral cooperation. It takes policy decisions on bilateral cooperation, investment in joint projects and further recommends public investments required for projects and activities jointly identified. The committee is meant to meet at least once a year, with the meetings alternating between both countries.

Indo-Nepal Joint Commission on Water Resources (JCWR)

The JCWR was established in 2000 to discuss and take decisions on issues of cooperation in the water sector. Headed by the secretaries from the Ministry of Energy from Nepal and Ministry of Water Resources from India, the JCWR works to ensure the implementation of existing agreements and fostering understanding between both countries. The terms of reference of the JCWR,² which are available on the website of the Water and Energy Commission Secretariat state that the committee is responsible for assessing the compliance of provisions of all the agreements reached between the two countries on water related issues, monitor the progress of different committees and groups and approve and/or recommend necessary action by the concerned governments to expedite progress or to meet agreed objectives. JCWR meetings are to be held once in six months alternating between Nepal and India at mutually agreed places. Since its establishment in 2000, seven JCWR meetings have taken place.

Joint Standing Technical Committee (JSTC)

The JSTC was constituted to rationalize technical committees and sub-committees existing between India and Nepal related to flood management, inundation problems and flood forecasting activities besides projects specific committees on hydropower. The JSTC coordinates all technical committees and sub-committees under JCWR. On the Nepal side it is headed by representatives of the Ministry of Irrigation, Water and Energy Commission Secretariat, Department of Water Induced Disaster Prevention, Department of Irrigation, Department of Electricity Development, Ministry of Foreign Affairs, Nepal Electricity Authority and other joint projects manager on the Nepal side. On the Indian side, the JSTC comprises representatives of the Ganga Flood Control Commission (GFCC), Ministry of Water Resource, Ministry of Power, Central Water Commission, Central Electricity Authority (CEA) and other state representatives from Uttar Pradesh, Bihar, West Bengal and Uttarakhand.

Other bilateral committees that are operational between the two countries include the Joint Committee on Inundation and Flood Management (JCFIM), Power Exchange Committee (PEC), Joint Committee on Kosi and Gandak Projects (JCKGP), Joint Team of Experts (JTE) and the Kosi High Level Committee (KHLIC).

2. National Agencies with a Mandate of Water Governance

In Nepal, key national ministries, agencies and departments with a mandate to work on water-related issues include the following:

Water and Energy Commission Secretariat (WECS)

WECS reviews and recommends the implementation of multipurpose, mega and medium scale water resource projects before they are sanctioned by the Government of Nepal. It further works to formulate laws and policies for the development of water resources and energy and coordinate between national, sectoral water and energy policies.

Ministry of Energy (MoE)

MoE is responsible for the production of energy for the expansion of industrial and economic activities. It is also responsible for the development and implementation of policies and plans and for conservation, regulation and utilization of energy. It conducts surveys, research and feasibility studies and carries out the construction, operation, maintenance and promotion of multipurpose electricity projects.

Ministry of Irrigation (MoI)

MoI develops and implements policies and plans to conserve, regulate and utilize irrigation resources and facilities in the country. Like the MoE, it also conducts surveys, research and feasibility studies of irrigation to construct, operate and promote irrigation project.

Nepal Electricity Authority (NEA)

The primary objective of NEA is to generate, transmit and distribute adequate, reliable and affordable electricity by planning, constructing, operating and maintaining all generation, transmission and distribution facilities in Nepal's power system both interconnected and isolated.

Department of Hydrology and Meteorology (DHM)

The primary role of the DHM is to monitor all hydrological and meteorological activities in Nepal. Specifically, its role includes collecting and disseminating hydrological and meteorological information for water resources, agriculture, energy, and other developmental activities, issuing hydro-meteorological forecasts, conducting studies and promoting relationships between national and international organizations in the field of hydrology and meteorology.

Department of Water Induced Disaster Prevention (DWIDP)

The role of the DWIDP is to build the knowledge and skills of technical staff of the government offices and related agencies associated with water-induced disaster mitigation works. The DWIDP has established a data bank to collect information related to water-induced disasters and this information is disseminated through various publications. Besides these, various studies on water-induced disasters are undertaken. Seminars and workshops are also conducted to help improve community awareness.

Implementation of Treaties with Agreements

The 1954 Kosi Agreement between India and Nepal provides for the construction of “barrage, head works and other appurtenant work” on the land lying within the territories of Nepal for the purpose of flood control, irrigation, and generation of hydroelectricity and prevention of erosion. As per the agreement, construction of a 1,149 meter-long barrage began in 1959 and was completed in 1963. In the same year, a 263-kilometer embankment (18 kilometers upstream and 245 kilometers downstream) was also constructed. Subsequently, embankment construction was extended in India further downstream up to Kursela, where the Kosi joins the Ganga.

The Kosi Agreement contains a provision that describes Nepal's right to withdraw water for irrigation and any other purpose from the river. Currently, irrigation facility is available in 215,000 ha of agricultural land in the Kosi Basin.³ Four canals operate from the Kosi Barrage. India receives water from the east Kosi canal system and Nepal receives water from the west Kosi canal system. Since 1970, another irrigation scheme, the Sunsari-Morang Irrigation Scheme has also been operational. In general, the Department of Irrigation, concerned project office, user groups, village development committee (VDC) office and local NGOs maintain information on irrigation facilities.

Despite the existence of these irrigation facilities, there are areas where the irrigation supply remains unsatisfactory. In Darbesa, one of the VDCs in Morang District, the canal is completely dry and has blocked the natural drainage of a nearby river and caused water logging. In some places, the delayed supply of water has created problems for local farmers. Poor maintenance of the canal in particular the lack of timely removal of accumulated sand and dirt has been the main reason for the delayed water supply. In addition, lengthy managerial and bureaucratic decision making procedures have also caused delays in release of water from the canal.

The Kosi Agreement stipulated that the land needed for construction works was to be leased to the Indian Government for a period of 99 years in return for financial compensation. The project displaced around 45,000 families and inundated 13,217 Bighas of agricultural land. To rehabilitate the displaced population, 21.2 million NRs. was initially allocated. However, by the

end of 1960, only 70 villages were rehabilitated. Between 1972 and 1973, about 32,540 families received the first installment to build new houses. Of these, only 10,580 families received the second installment as compensation. However, none of the families in the Kosi Basin received the third installment.⁴ Nepal brought up the issue of compensation of private land at the seventh JCWR meeting (Jan 24-25, 2013). As mentioned in the JCWR minutes,⁵ 1516 Bighas⁶ were eroded during 1961-1964, 3948 Bighas eroded during 1965-1968 and an additional 2226 Bighas were jointly verified by officers from both sides. The rate of compensation was determined earlier. Again in the fourth JSTC meeting in September 2013, the Nepal side raised the issue of compensation of land eroded by the Kosi and land lost due to the Kosi project. However, the Indian side informed that there was no provision on compensation of eroded land in general in India as well as in the Kosi Agreement.

Three key issues that have dominated discussions between Nepal and India in the meetings of the JCWR include the Saptakoshi High Dam Multipurpose Project, Kosi Afflux Bund Breach and project compensation. The Saptakoshi High Dam project has been a point of discussion between India and Nepal for a number of years. In 1946, the Indian government carried out a field survey for the Saptakoshi High Dam, and in 1981 an initial feasibility study report was prepared. In 1985, development of the Sunkoshi Storage-cum-Diversion Project was also proposed along with the High Dam. The High Dam project has been disrupted by locals periodically, affecting detailed investigations.

In 1996, a joint office was set up in Morang, Biratnagar to conduct investigations into the Sunkoshi High Dam Project and Sunkoshi, Kamala Diversion Project. Despite protests, the geological study was resumed in 2011 and the pending drilling work by 2015. Nepal and India also agreed to extend the deadline for a detailed feasibility study of the Saptakoshi High Dam Multipurpose Project to February 2015. Following the devastating floods that occurred on August 18, 2008, three consecutive JCWR meetings were organized between 2008-2009. Through these meetings, early closure of the embankment breach was recognized as a key priority by both governments alongside the need to cooperate in times of disaster. Subsequently, India completed closure of the embankment breach by 2009.

Transparency and Access to Information of Bilateral Treaties and Negotiations

As a part of the study, ISET-Nepal's researchers assessed the websites of WECS,⁷ MoE⁸ and MoI⁹ to determine whether information on agreements, bilateral minutes and MoUs were publically available. The analysis suggests that some information pertaining to river treaties, minutes of meetings of JCWR and JSTC and press releases are available on government websites. For example, most of the meeting minutes of JCWR and JSTC are available on the WECS and MoE websites. Minutes of three JSTC meetings are available on the MoI website. Similarly, the MoU

of the Arun III Hydropower Project is also available on the WECS webpage. These bilateral meeting minutes provide useful information on the status and progress on ongoing negotiations priority issues and implementation of agreed plans/activities.

A review of the minutes of bilateral meetings reveals that in general the meetings call for cooperation between Nepal and India. Notably, the meeting minutes are quite brief and do not provide sufficient information. Furthermore the use of acronyms serves to prevent readers from gaining a deeper understanding of the issues being discussed. For example, a local protest against the Saptakoshi High Dam project has been mentioned in the JCWR minutes but the minutes do not provide additional details on the nature of local demands and reasons behind such protests.

The minutes reflect the concerns of both governments on the progress of High Dam Project and highlight the need for political consensus, security and resumption of work. Following the 2008 Kosi floods, during bilateral meetings, both countries clearly recognized the importance of cooperation and the need to take immediate action. As the minutes reveal, in bilateral meetings, Nepal expressed the urgent need to repair the embankment breach while India requested assistance for its field staff. The mutual support and coordination between both governments at the time of Kosi disaster proved to be effective as the embankments were repaired in a timely manner and rehabilitation work was carried out progressively. At the same time, Nepal compensated the victims of the 2008 floods and also gained international support for relief and rehabilitation.

From the analysis it is apparent that government authorities in Nepal have taken the initiative to share some information on treaties and bilateral meeting minutes, however this information is limited and needs to be updated. Notably the 1954 Kosi Agreement and some JCWR and JSTC minutes are not available on government websites. Government websites in Nepal only have a copy of the 1966 Kosi Agreement and not the original Agreement of 1954. In fact to assess the differences between the two treaties, the 1954 Agreement was retrieved from the website of the Indian Embassy in Nepal.¹⁰ The lack of systematic documentation could be a possible cause for the absence of certain information and documents on government websites.

The public availability of JCWR and JSTC minutes – limited as it may be – enables readers to understand the types of issues raised during these meetings and understand the composition of these two bilateral committees. Notably, however, information about the bilateral meetings of other joint committees such as the JMCWR, JTE, KHLIC, and Joint Committee on Inundation and Flood Management (JCIFM) are not shared in the public domain. Therefore, the public is not aware about the composition and responsibilities of these committees.

In addition to information disseminated through websites, updates about bilateral meetings are normally disseminated in the media to inform the public on transboundary water issues and projects. Popular national dailies such as “Kantipur”¹¹ and “The Himalayan Times”¹² have

published key highlights of these meetings. Such dissemination enables the public to become aware about matters discussed in bilateral negotiations. Typically such news items provide only broad highlights so those interested in learning more about existing bilateral agreements and negotiations have to download the minutes, treaties and MoUs from government websites. In Nepal, newspapers still play a vital role in informing the public on various issues including transboundary cooperation.

However, news reportage is not always accurate and from time to time the Nepali media has been blamed for publishing misleading news. For example, following the 2008 Kosi floods, some newspapers in Nepal mentioned that the floods occurred due a breach in the Kosi dam¹³ which is untrue, as no dam exists. Therefore, the public cannot completely rely on the media for access to information on transboundary water issues. At a local level, the experience of ISET-Nepal's researchers with local stakeholders residing in the Kosi Basin suggests that they are aware of the Kosi Agreement, its provisions as well as the benefits that were to be received from the project. Notably, there has been significant activism by local NGOs and those affected by the floods that may have created a heightened sense of awareness and improved local access to information.

To summarize, in Nepal, government agencies are fairly transparent as they readily provide information where it is available. However, the lack of systematic documentation and records keeping of information is a major challenge. Furthermore, both the public and government are largely unaware about the value and importance of information disclosure. On transboundary water issues, the public in general is unaware of the different bilateral committees and people seldom seek information on treaties or the negotiation process. This may be one of the reasons information is not freely-disseminated by the government as people simply do not ask, and the government thus does not feel the need to disclose it.

Notably, unlike India, data and information on transboundary water issues is not regarded as classified in Nepal. Government authorities will not deny any information but it is likely that release of the requested information will be delayed due to poor data and records management practices. Another challenge is timely information updates. Government often fails to disclose the most recent bilateral minutes and reports as it is not perceived as a priority. Thus despite the general wiliness and openness of the Nepal government, poor infrastructure, lack of capacity, awareness and knowledge are serving as obstacles in the path of transparency. People rarely question the information that is disclosed and do not evaluate reasons behind data and information gaps.

Conclusion and Recommendations

The Government of Nepal has shared numerous treaties, negotiations and bilateral meeting minutes in the public domain. Details of the Kosi Agreement, JCWR and JSTC meeting minutes and MoUs of hydropower are available on official government websites. Such information sharing is useful for journalists, academicians and stakeholders interested in transboundary water issues. Public access to this information will serve to educate the public on the current status and implementation of existing bilateral treaties, negotiations and planned and existing projects. For example, the Kosi Agreement itself provides details on hydro-engineering structures, their benefit, water use, compensation, lease of land and royalties. Likewise meeting minutes provide updates on the status and progress of hydro-engineering projects, flood mitigation and a review of the activities of bilateral committees. However, there remain a number of ways in which public access to information on the status and implementation of bilateral agreements such as the Kosi could be made more easily available and accessible. These include:

Government and Bilateral Bodies:

- All the old and amended water treaties should be shared with the public for better dissemination.
- All the bilateral papers should be systematically documented and soft copies of documents should be uploaded on official websites.
- Given the difficulties in assessing information on the implementation of agreements and negotiations, government officials can share the relevant documents on implementation and develop inventories that are simple, easy to understand and yet informative.
- The minutes of joint committee meetings can be made more comprehensive and specific so that the public can understand the depth of the issues being discussed.

Civil Society

- Public review and feedback on the availability of information by local stakeholders, academicians and journalists can assist government officials in determining what information is of public interest and should be made easily available and accessible. The government authorities may not be aware about the types of information that maybe significant to the public. Therefore, continuous request, review and feedback may encourage officials to disclose the information for public consumption.

- Academicians should critically analyze the treaties and negotiations and suggest appropriate measures to improve those agreements
- Media should timely and accurately provide information to public and verify and cross check any disputing statement.

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Endnotes

1. In June 2013, the Asia Foundation (TAF) with support from the Skoll Global Threats Fund and in partnership with the World Resources Institute and civil society organizations in Bangladesh, India and Nepal, initiated a project to promote and strengthen transparency and access to data and information on transboundary water governance in South Asia. Over a 15-month period, TAF and its partners assessed the availability of data and information relating to three transboundary rivers in Bangladesh, India and Nepal, while building the capacity of civil society and the media to utilize transparency tools and mechanisms—including the right to information—to push for greater access to data and information on water and climate issues, and disseminate this information within the region. In Nepal, TAF partnered with the ISET-N to implement the project.
2. <http://www.weecs.gov.np/pdf/JCWR-I.pdf>.
3. WECS, 2011.
4. Pathak, 2008.
5. <http://www.weecs.gov.np/pdf/JCWR-VII.pdf>.
6. 1 Bigha = .677263 hectare = 1.6735 acre.
7. <http://www.weecs.gov.np/treaties-bilateral-minutes-mous.php>.
8. <http://www.moen.gov.np/>.
9. <http://www.moir.gov.np/>.
10. http://www.indianembassy.org.np/water-resources/agreement_on_the_Koshi_project_bet_nepal_india_kathmandu_april25_1954.pdf.
11. <http://www.ekantipur.com/2013/01/17/headlines/Nepal-India-Joint-Committee-on-Water-Resources/365733/>.
12. <http://www.thehimalayantimes.com/fullNews.php?headline=Experts+stress+on+fair+water+policy&NewsID=362993>.
13. http://www.gorkhapatra.org.np/rising.detail.php?article_id=33864&cat_id=8.



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